Chapter 12 Test Review

1. Let G = {A, B, C, D, E}. List all of the ways that you can select two different members of G. The order in which you select the members is not important.
2. Let G = {A, B, C, D, E}. List all of the ways that you can select two different members of G. The order in which you select the members is important.
3. A club has 33 members. In how many ways can they select a person to be President and a different person to be Treasurer?
4. A 12-sided die is rolled three times. In how many ways can this happen?
5. How many license plates are possible consisting of 4 letters followed by 2 digits, if the first letter must be a Q.
6. Using the digits 4, 5, 6, 7, and 8, how many 4-digit numbers can be constructed if the number must begin with an odd digit and digits may not be repeated?

*\*For 7-9, show the formula used to compute the answer – for example, P(3, 1) =* $\frac{3! }{\left(3-1\right)!}$

1. Evaluate P(7, 5) 8. Evaluate C(7, 0) 9. Evaluate P(5, 0)
2. Describe where C(23, 6) can be found in Pascal’s triangle.